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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/730,001	KUDO, KEI	
	Examiner	Art Unit	
	Andy S. Rao	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed with respect to claims 1-16 (amended) on 6/27/08 have been fully considered but they are not persuasive.

2. Claims 1-16 (amended) remain rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al., (hereinafter referred to as "Aharoni") in view of Vetro.

3. The Applicant presents ten arguments contending the Examiner's previously pending rejection of claims 1-16 under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al., (hereinafter referred to as "Aharoni") in view of Vetro, as was set forth in the Office Action of 12/27/07, said arguments being set forth in support of the currently amended claims 1-16 and directed towards the added limitations of "…wherein the result of the motion prediction is converted by each of the plural number of parameters, which are set with motion predictions obtained through the motion prediction processor…" as in claims 1 and 16 and the limitations of "…in accordance with each of the motion vectors of formats, respectively…" as in claims 2 and 10. However, after careful consideration of the arguments presented and further scrutiny of applied Aharoni and Vetro references, the Examiner must respectfully disagree and maintain the applicability of the references as the basis of the grounds of rejection that follow.

After summarizing the Examiner's currently pending rejection (Amendment of 6/27/08: page 9, lines 6-19), describing the salient features of amended claims 1 and 16 (Amendment of 6/27/08: page 9, lines 20-23; page 10, lines 1-21), and providing applicant's interpretation of the primary Aharoni reference (Amendment of 6/27/08: page 11, lines 1-14), the Applicant argues that Aharoni would fail to address the "…wherein the result of the motion prediction is

converted by each of the plural number of parameters, which are set with motion predictions obtained through the motion prediction processor…" (Amendment of 6/27/08: page 11, lines 15-27; page 12, lines 1-2 & 8-13). The Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In particular, the Examiner notes that since Vetro had been called upon the address the motion prediction features of the instant invention as previously recited, Aharoni on its own would not have to meet this feature, but would address this feature with its combination with Vetro, which will be discussed below.

Furthermore, the Applicant's argue that the applied Aharoni fails to parallel encoding by means of a plurality of encoders as supported by the "…plural encoders which encode the non-encoded image data to generate compressed image data by using the plural parameters stored in the storage unit and the motion prediction result stored in the memory and output the compressed image data respectively to the plural output terminals…" as recited in claim 1, and as similarly recited in claim 16 (Amendment of 6/27/08: page 13, lines 3-7 & 13-22). The Examiner flatly disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., parallel processing as executed by the plurality of encoders) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).* Additionally, it is noted that in the multi-server platform (Aharoni: column 18, lines 43-

50: N servers would each have its own encoder, and thus read upon the claimed plurality encoders) as disclosed by the primary reference does read upon the plurality of encoders (Aharoni: column 18, lines 65-67; column 19, lines 1-2), and furthermore, the Examiner notes teach respective plurality of servers allow function concurrently to produce their respective video streams, which the Examiner notes reads upon the parallel processing of the encoders (Aharoni: column 19, lines 25-35). So, even if the claims were amended to support the parallel processing feature, the Examiner would note that the Aharoni teaching of "…concurrent processing..." sufficiently addresses this feature. Accordingly, the Examiner maintains that the limitation remains met.

Furthermore, after summarizing the secondary Vetro reference (Amendment of 6/27/08: page 13, lines 23-25; page 14, lines 1-7 & 22-25), pointing of the pertinent features of claims 1 and 16 as it pertains to the secondary Vetro teaching (Amendment of 6/27/08: page 14, lines 8-21), the Applicant argues that Vetro's teaching of microblock production and motion vector conversion using a plurality of conditions (Amendment of 6/27/08: page 14, lines 22-25; page 15, lines 1-3) doesn't read upon the present invention which has the result of the motion prediction being converted by each of a plural numbers of parameters (Amendment of 6/27/08: page 14, lines 22-25; page 15, lines 4-14), as in the claims. The Examiner flatly disagrees. It is noted Vetro clearly discloses the conversion of the drift-error compensation blocks (i.e. the motion prediction result) because this conversion can happen due to the multiple parameters of re-quantization and resolution conversion (Vetro: column 10, lines 5-10). Since Vetro discloses the conversion of drift error compensation blocks within its motion prediction result, the Examiner maintains that the limitation remains met.

In response to applicant's arguments against the references individually (Amendment of 6/27/08: page 15, lines 15-19), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In particular, the Examiner notes that the "…plural encoders which encode the non-encoded image data to generate compressed image data by using the plural parameters stored in the storage unit and the motion prediction result stored in the memory and output the compressed image data respectively to the plural output terminals…" as it pertains to the plural encoders teaching of the application is met by the primary reference. As discussed above, with each of Aharoni's encoders of the plurality incorporating a respective motion prediction processor, the combination would clearly meet the claims of the instant invention, as each motion prediction processor produces a drift error compensation block according to the desired parameters of resolution conversion and requantization noise. Accordingly, the Examiner maintains that the limitation is met..

After summarizing the salient features of claims 2-9 (Amendment of 6/27/08: page 15, lines 20-23; page 16, lines 1-16 & 21-24), providing Applicant's interpretation of the primary reference (Amendment of 6/27/08: page 16, lines 17-20), the Applicants argue that the positively recited "....plural encoders that generate plural encoded image data in different formats, in accordance with each of the motion vectors of formats…." limitation is not met (Amendment of 6/27/08: page 17, lines 1-26; page 18, lines 7-9). The Examiner respectfully disagrees. . In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., parallel processing as

executed by the plurality of encoders) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).* Additionally, it is noted that in the multi-server platform (Aharoni: column 18, lines 43-50: N servers would each have its own encoder, and thus read upon the claimed plurality encoders) as disclosed by the primary reference does read upon the plurality of encoders (Aharoni: column 18, lines 65-67; column 19, lines 1-2), and furthermore, the Examiner notes teach respective plurality of servers allow function concurrently to produce their respective video streams, which the Examiner notes reads upon the parallel processing of the encoders (Aharoni: column 19, lines 25-35). So, even if the claims were amended to support the parallel processing feature, the Examiner would note that the Aharoni teaching of "…concurrent processing..." sufficiently addresses this feature. As to the addressing the motion vector formats, the Examiner notes that Aharoni clearly discloses compression according MPEG-1 or MPEG-2 (Aharoni: column 8 lines 60-65), and MPEG-4 (Aharoni: column 18, lines 40-45), and thus the motion vectors used in accordance with those compression standards would be "…motion vectors of different formats…" as in the claims. Accordingly, the Examiner maintains that the limitation remains met.

After describing the salient features of amended claims 2-9 (Amendment of 6/27/08: page 18, lines 1-6), the Applicant argues that Aharoni would fail to address the "…a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit, and outputs the converted motion vectors which are to be used respectively by the plural encoders…" as recited in claim 2

(Amendment of 6/27/08: page 18, lines 11-18). The Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In particular, the Examiner notes that since Vetro had been called upon the address the motion prediction features of the instant invention as previously recited, Aharoni on its own would not have to meet this feature, but would address this feature with its combination with Vetro.

After summarizing the secondary Vetro reference (Amendment of 6/27/08: page 18, lines 20-22), and reiterating the salient features of the amended claims 2-9 including the "…plural encoders that generate plural encoded image data in different formats, in accordance with each of the motion vectors of formats…." limitation (Amendment if 6/27/08: page 18, lines 23-25; page 19, lines 1-2) and the "…motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit, and outputs the converted motion vectors which are to be used respectively by the plural encoders…" limitation (Amendment of 6/27/08: page 19, lines 3-7). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In particular, the Examiner notes that the "…plural encoders…" as it pertains to the plural encoders teaching of the application is met by the primary reference. With each of Aharoni's encoders of the plurality incorporating a respective motion

prediction processor, the combination would clearly meet the claims of the instant invention, as each motion prediction processor produces a drift error compensation block according to the desired parameters of resolution conversion and requantization noise. In addressing the "…motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit, and outputs the converted motion vectors which are to be used respectively by the plural encoders…" limitation, the Applicant provides interpretation that Vetro is directed towards microblock production and motion vector conversion using a plurality of conditions (Amendment of 6/27/08: page 19, lines 8-19), and thus doesn't read upon the present invention which has the result of the motion prediction being converted by each of a plural numbers of parameters (Amendment of 6/27/08: page 19, lines 21-25; page 20, lines 1-12), as in the claims. The Examiner flatly disagrees. It is noted Vetro clearly discloses the conversion of the drift-error compensation blocks (i.e. the motion prediction result) because this conversion can happen due to the multiple parameters of re-quantization and resolution conversion (Vetro: column 10, lines 5-10). Since Vetro discloses the conversion of drift error compensation blocks within its motion prediction result, the Examiner maintains that the limitation remains met. Also, with regards to the "…motion vectors of different formats…" qualifier of the first limitation, the Examiner would note that both references disclose compression in accordance with MPEG-1, MPEG-2, and MPEG-4 compression standards (Aharoni: column 18, lines 40-45; Vetro: column 1, lines 10-50), and thus motion vectors according to each standard would be a respective different format. Accordingly, the Examiner maintains that both limitations are met.

After summarizing the salient features of claims 10-25 (Amendment of 6/27/08: page 20, lines 12-24; page 21, lines 1-7), providing Applicant's interpretation of the primary reference (Amendment of 6/27/08: page 21, lines 8-10 and 15-22), the Applicants argue that the positively recited "....plural encoders that generate plural encoded image data in different formats, in accordance with each of the motion vectors of formats…." limitation is not met (Amendment of 6/27/08: page 22, lines 1-13 and 20-22). The Examiner respectfully disagrees. . In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., parallel processing as executed by the plurality of encoders) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).* Additionally, it is noted that in the multi-server platform (Aharoni: column 18, lines 43-50: N servers would each have its own encoder, and thus read upon the claimed plurality encoders) as disclosed by the primary reference does read upon the plurality of encoders (Aharoni: column 18, lines 65-67; column 19, lines 1-2), and furthermore, the Examiner notes teach respective plurality of servers allow function concurrently to produce their respective video streams, which the Examiner notes reads upon the parallel processing of the encoders (Aharoni: column 19, lines 25-35). So, even if the claims were amended to support the parallel processing feature, the Examiner would note that the Aharoni teaching of "…concurrent processing..." sufficiently addresses this feature. As to the addressing the motion vector formats, the Examiner notes that Aharoni clearly discloses compression according MPEG-1 or MPEG-2 (Aharoni: column 8 lines 60-65), and MPEG-4 (Aharoni: column 18, lines 40-45), and thus the motion vectors used in accordance with those

compression standards would be "…motion vectors of different formats…" as in the claims. Accordingly, the Examiner maintains that the limitation remains met.

After describing the salient features of amended claims 10-25 (Amendment of 6/27/08: page 22, lines 14-19), the Applicant argues that Aharoni would fail to address the "…a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit, and outputs the converted motion vectors which are to be used respectively by the plural encoders…" as recited in claim 10 (Amendment of 6/27/08: page 22, lines 23-25; page 23, lines 1-7). The Examiner respectfully disagrees. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In particular, the Examiner notes that since Vetro had been called upon the address the motion prediction features of the instant invention as previously recited, Aharoni on its own would not have to meet this feature, but would address this feature with its combination with Vetro.

A detailed rejection addressing the newly added limitations follows After summarizing the secondary Vetro reference (Amendment of 6/27/08: page 23, lines 8-10 and 20-26; page 24, lines 1-2), and reiterating the salient features of the amended claims 10-25 including the "…plural encoders that generate plural encoded image data in different formats, in accordance with each of the motion vectors of formats…." limitation (Amendment if 6/27/08: page 23, lines 11-14) and the "…motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input

unit, and outputs the converted motion vectors which are to be used respectively by the plural encoders…" limitation (Amendment of 6/27/08: page 23, lines 15-19). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In particular, the Examiner notes that the "…plural encoders…" as it pertains to the plural encoders teaching of the application is met by the primary reference. With each of Aharoni's encoders of the plurality incorporating a respective motion prediction processor, the combination would clearly meet the claims of the instant invention, as each motion prediction processor produces a drift error compensation block according to the desired parameters of resolution conversion and requantization noise. In addressing the "…motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit, and outputs the converted motion vectors which are to be used respectively by the plural encoders…" limitation, the Applicant provides interpretation that Vetro is directed towards microblock production and motion vector conversion using a plurality of conditions (Amendment of 6/27/08: page 24, lines 3-15), and thus doesn't read upon the present invention which has the result of the motion prediction being converted by each of a plural numbers of parameters (Amendment of 6/27/08: page 24, lines 18-25; page 25, lines 1-15), as in the claims. The Examiner flatly disagrees. It is noted Vetro clearly discloses the conversion of the drift-error compensation blocks (i.e. the motion prediction result) because this conversion can happen due to the multiple parameters of re-quantization and resolution conversion (Vetro: column 10, lines 5-10). Since Vetro discloses

the conversion of drift error compensation blocks within its motion prediction result, the Examiner maintains that the limitation remains met. Also, with regards to the "…motion vectors of different formats…" qualifier of the first limitation, the Examiner would note that both references disclose compression in accordance with MPEG-1, MPEG-2, and MPEG-4 compression standards (Aharoni: column 18, lines 40-45; Vetro: column 1, lines 10-50), and thus motion vectors according to each standard would be a respective different format. Accordingly, the Examiner maintains that both limitations are met.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aharoni et al., (hereinafter referred to as "Aharoni") in view of Vetro.

Aharoni discloses an encoding device (Aharoni: figure 1) connected to an input terminal to which encoded image data is input (Aharoni: column 6, lines 45-55), plural output terminals to which plural encoded image data are output (Aharoni: column 18, lines 13-25), and a parameter setting device to set plural parameters for generating the plural encoded image data which are respectively output to the plural output terminals (Aharoni: column 11, lines 30-45), said encoding device comprising: a storage unit that stores the plural parameters which are set by the parameter setting device (Aharoni: column 7, lines 45-60); a decoder that generates non-encoded

image data by decoding encoded image data which is input from the input terminal (Aharoni: column 6, lines 48-51); and plural encoders which encode the non-encoded image data to generate compressed image data by using the plural parameters stored in the storage unit and the motion prediction result (Aharoni: column 10, lines 50-65; column 18, lines 43-65: N server platform with each server having its own encoder); and output the compressed image data respectively to the plural output terminals (Aharoni: column 18, lines 20-30), as in claim 1. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction processor which generates basic parameters from the plural parameters stored in the storage unit and performs motion prediction on the non-encoded image data by using the basic parameters and a memory to store the result of the motion prediction, wherein the result of the motion prediction is concerted by each of the plural number of parameters, which are set with motion predictions obtained through the motion prediction processor, as in the claim. Vetro discloses a transcoder (Vetro: figure 7, element 701) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular a motion prediction processor which generates basic parameters from the plural parameters stored in the memory unit and performs motion prediction on the non-encoded image data (Vetro: column 8, lines 50-60) by using the basic parameters and a memory to store the result of the motion prediction (Vetro: column 9, lines 30-60), wherein the result of the motion prediction is concerted by each of the plural number of parameters, which are set with motion predictions obtained through the motion prediction processor (Vetro: column 5, lines 5-10: requantization error and resolution conversion), in order to provide for scaleable video signals with a simplified

architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni device by the incorporation of the Vetro singular motion prediction processor therein in order to simplify the server architecture of the Aharoni device while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni device, now incorporating the singular motion prediction processor, has all of the features of claim 1.

Aharoni discloses an encoding device (Aharoni: figure 1) which generates encoded data in plural formats (Aharoni: column 6, lines 55-60; column 7, lines 1-6; column 10, lines 55-60), comprising: an input terminal to which image data to be encoded is input (Aharoni: column 6, lines 45-55; column 8, lines 47-60); plural encoders that generate plural encoded image data (Aharoni: column 10, lines 50-65; column 18, lines 43-65) in different formats (Aharoni: column 18, lines 40-45); an output terminal that outputs the plural encoded image data generated by the encoders (Aharoni: column 18, lines 13-25); an input unit that sets plural parameters which define each of the formats in which the image data is to be encoded by the encoders (Aharoni: column 11, lines 30-45); a processor that determines a set of basic parameters from the set plural parameters (Aharoni: column 13, liens 10-35), as in claim 2. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit and

outputs the converted motion vectors which are to be used respectively by the plural encoders, as in the claim. Vetro discloses a transcoder (Vetro: figure 7, element 701) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular motion prediction processor which calculates a motion vector (Vetro: column 10, lines 60-67) by using the set of basic parameters (Vetro: column 8, lines 50-60), converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders (Vetro: column 9, lines 30-60) in order to provide for scaleable video signals with a simplified architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni device by the incorporation of the Vetro singular motion prediction processor therein in order to simplify the server architecture of the Aharoni device while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni device, now incorporating the singular motion prediction processor, has all of the features of claim 2.

Regarding claim 3, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said processor is incorporated in said motion prediction processor (Vetro: column 10, lines 1-20), as in the claim.

Regarding claim 4, the Aharoni device, now incorporating the singular motion prediction processor, has a display unit to display a setting screen through which said plural parameters are prioritized (Aharoni: column 9, lines 55-67; column 10, lines 1-5; column 11, lines 55-65), as in the claim.

Regarding claim 5, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said processor also determines which one of said plural parameters is to be given priority (Aharoni: column 12, lines 45-55), as in the claim.

Regarding claim 6, the Aharoni device, now incorporating the singular motion prediction processor, has further comprising a decoder to decode encoded data which is input from said input terminal (Aharoni: column 6, lines 45-50), as in the claim.

Regarding claim 7, the Aharoni device, now incorporating the singular motion prediction processor, has wherein if the basic parameters set by said processor do not comply with any set format, said motion prediction processor converts the image data according to the basic parameters before performing motion prediction (Vetro: column 11, lines 20-30), as in the claim.

Regarding claims 8-9, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said plural parameters include an image size (Aharoni: column 7, lines 1-7; column 18, lines 40-45) and a frame rate (Aharoni: column 12, lines 45-55), as in the claims.

Aharoni discloses an encoding device (Aharoni: figure 1) which generates plural encoded data (Aharoni: column 6, lines 55-60; column 7, lines 1-6; column 10, lines 55-60), comprising: plural encoders to generate encoded image data (Aharoni: column 10, lines 50-65; column 18, lines 43-65) in respectively different formats (Aharoni: column 18, lines 40-45); an output terminal to output the plural encoded image data generated by the encoders (Aharoni: column 18, lines 13-25); an input unit to set plural parameters which define each of the formats in which the image data is to be encoded by the encoders and to prioritize the plural parameters (Aharoni: column 9, lines 55-65; column 11, lines 50-65) for each format (Aharoni: column 6, lines 45-55;

column 8, liens 47-60); a processor to determine a set of basic parameters from the set plural parameters according to the prioritization (Aharoni: column 13, lines 10-35), as in claim 10. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction processor which calculates a motion vector by using the set of basic parameters, converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders, as in the claim. Vetro discloses a transcoder (Vetro: figure 7, element 701) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular motion prediction processor which calculates a motion vector (Vetro: column 10, liens 60-67) by using the set of basic parameters (Vetro: column 8, lines 50-60), converts the motion vector according to the parameters set through the input unit and outputs the converted motion vectors which are to be used respectively by the plural encoders (Vetro: column 9, lines 30-60) in order to provide for scaleable video signals with a simplified architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni device by the incorporation of the Vetro singular motion prediction processor therein in order to simplify the server architecture of the Aharoni device while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni device, now incorporating the singular motion prediction processor, has all of the features of claim 10.

Regarding claim 11, the Aharoni device, now incorporating the singular motion prediction processor, has wherein said processor is incorporated in said motion prediction processor (Vetro: column 10, lines 1-20), as in the claim.

Regarding claim 12, the Aharoni device, now incorporating the singular motion prediction processor, has wherein the largest value set for each parameter is determined as the basis parameter by said processor (Aharoni: 15, lines 35-67; column 16, lines 1-50), as in the claim.

Regarding claim 13, the Aharoni device, now incorporating the singular motion prediction processor, has a display unit to display a setting screen through which said plural parameters are prioritized (Aharoni: column 9, lines 55-67; column 10, lines 1-5; column 11, lines 55-65), as in the claim.

Regarding claim 14, the Aharoni device, now incorporating the singular motion prediction processor, has further comprising a decoder to decode encoded data which is input from said input terminal (Aharoni: column 6, lines 45-50), as in the claim.

Regarding claim 15, the Aharoni device, now incorporating the singular motion prediction processor, has wherein if the basic parameters set by said processor do not comply with any set format, said motion prediction processor converts the image data according to the basic parameters before performing motion prediction (Vetro: column 11, lines 20-30), as in the claim.

Aharoni discloses an encoding method (Aharoni: figures 11-1, 11.2, 12.1, 12.2, 13, and 14) for an encoding device (Aharoni: figure 1) connected to an input terminal to which encoded image data is input (Aharoni: column 6, lines 45-55), plural output terminals to which plural

encoded image data are output (Aharoni: column 18, lines 13-25); and a parameter setting device to set plural parameters for generating the plural encoded image data which are respectively output to the plural output terminals (Aharoni: column 11, lines 30-45), said encoding method comprising the steps of: storing the plural parameters which are set by the parameter setting device (Aharoni: column 7, lines 45-60); generating non-encoded image data by decoding encoded image data which is input from the input terminal (Aharoni: column 6, lines 48-51); generating basis parameters from the stored plural parameters (Aharoni: column 10, lines 50-65; column 18, lines 43-65); and encoding the non-encoded image data to generated compressed image data by using the stored plural parameters (Aharoni: column 8, lines 45-65), and outputting the compressed image data respectively to the plural output terminals (Aharoni: column 18, lines 20-30), as in claim 16. However, even though Aharoni discloses the use of motion prediction (Aharoni: column 9, lines 5-10) as a part of MPEG based compression (Aharoni: column 6, lines 55-60), it fails to specifically disclose a motion prediction step which generates basic parameters from the stored plural parameters and performs motion prediction on the non-encoded image data by using the basic parameters and the result of the motion prediction, wherein the result of the motion prediction is concerted by each of the plural number of parameters, which are set with motion predictions obtained through the motion prediction processor, as in the claim. Vetro discloses a transcoding method (Vetro: figure 7, element 701; column 4, lines 37-41) for output to plural terminals (Vetro: figure 7, elements 702) which makes use of a singular a motion prediction step which generates basic parameters from the stored plural parameters and performs motion prediction on the non-encoded image data (Vetro: column 8, lines 50-60) by using the basic parameters and the result of the motion prediction

(Vetro: column 9, lines 30-60), wherein the result of the motion prediction is concerted by each of the plural number of parameters, which are set with motion predictions obtained through the motion prediction processor (Vetro: column 5, lines 5-10: requantization error and resolution conversion), in order to provide for scaleable video signals with a simplified architecture in the transcoder by unifying the motion compensation process (Vetro: column 4, lines 30-35). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the Aharoni method by the incorporation of the Vetro singular motion prediction step therein in order to simplify the server architecture of the device associated with the Aharoni method while still allowing the user to provide scaleable video signals for deliver to plural video clients across a distributed communication network such as the Internet. The Aharoni method now incorporating the singular motion prediction step, has all of the features of claim 16.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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